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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,421	06/30/2003	Volkan Kursun	000687-00302	8087

27557 7590 09/07/2006

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EXAMINER

TRAN, ANH Q

ART UNIT PAPER NUMBER

2819

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/608,421	KURSUN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anh Q. Tran	2819	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-9 and 17-49 is/are pending in the application.
- 4a) Of the above claim(s) 19-25, 27-33, 35-41 and 43-49 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 16-18, 34 and 42 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Krishnamurthy et al (6,346,831).

Claim 2, Krishnamurthy shows a domino logic circuit (Figs. 6, 7, 8), comprising;  
a pulldown circuit (M19, Fig. 6 or M21-0 to M22-X, Fig. 7) having a dynamic node (A, Fig. 6, or Q, Figs. 7-8);

a keeper (M16, M24 or M33) connected to the pulldown circuit at the dynamic nodes and

a source (174, Fig. 6) of a body bias voltage, the source of the body bias voltage being connected to the keeper to supply the body bias voltage to the keeper to bias the keeper wherein the body bias voltage is a reverse body bias voltage (col. 7, lines 45-48).

Claim 3, Krishnamurthy shows the domino logic circuit of claim 2, wherein the reverse body bias voltage is static (constant voltage, col. 7, lines 48-50).

Claim 4, Krishnamurthy shows the domino logic circuit of claim 3, further comprising a foot transistor (M20, Fig. 6) for connecting the pulldown circuit to ground (Vss).

Claim 5, Krishnamurthy shows the domino logic circuit of claim 3, wherein the pulldown circuit (MN1-0 to M22-X, Fig. 7) is connected to ground without an intervening foot transistor.

Claim 6, Krishnamurthy shows the domino logic circuit of claim 2, wherein the source supplies the reverse body bias voltage such that the reverse body bias voltage alternates between two values (changing voltages, col. 7, lines 48-50).

Claim 7, Krishnamurthy shows the domino logic circuit of claim 6, further comprising a foot transistor (M20, Fig. 6) for connecting the pulldown circuit to ground.

Claim 8, Krishnamurthy shows the domino logic circuit of claim 6, wherein the pulldown circuit (MN1-0 to M22-X, Fig. 7) is connected to ground without an intervening foot transistor.

***Allowable Subject Matter***

3. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 9, 16-18, 34 and 42 are allowed.

5. The following is an examiner's statement of reasons for allowance: with respect to claims 16 and 34, in addition to other limitations in the claims, the prior art of record

fails to teach, disclose or render obvious the applicant's invention as claimed, particularly the feature describing:

-claim 16, wherein source supplies the body bias voltage such that the body bias voltage alternates between a first forward body bias voltage value and a second reverse body bias voltage value.

-claim 34, wherein the source supplies the body bias voltage such that the body bias voltage alternates between the two values in accordance with a clock signal applied to the domino logic circuit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

6. Applicant's arguments filed 6/20/06 have been fully considered but they are not persuasive. The Applicant's argues that "the present claimed invention is not anticipated by Krishnamurthy et al". However, Krishnamurthy teaches that the bias generation circuitry 174 may provide voltages to reverse body bias some or **all of the transistor of Figs. 6, 7, and 8** to increase  $V_t$  and decrease leakage and increase noise immunity, col. 7, lines 45-48. Therefore, claims 1-8 of the present claimed invention are anticipated by Krishnamurthy et al. Furthermore, the Declaration does not overcome the rejection since Krishnamurthy's filing date is prior to the Applicant's claims benefit 60/391,953 filed date 6/28/2002.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 571-272-1813. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**ANH Q. TRAN**  
**PRIMARY EXAMINER**



9/4/06